

SHAKHNAZAROV, Arman Arutyunovich; QEYMAN, M.A., red.; PETROVA, Ye.A.,
ved.red.; FEDOTOVA, I.G., tekhn.red.

[Cementing of the bottom hole area] Kreplenie prizaboynoi zony
skvashin. Moskva, Gos.nauchno-tekhn.isd-vo neft. i gorno-
toplivnoi lit-ry, 1959. 83 p. (MIRA 12:7)
(Oil well cementing)

KARAPETOV, Karo Ambartsumovich; MELIKBEKOV, Adshar Sultanovich;
PETROVA, Ye.A., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Hydraulic fracture of the stratum; experience of petroleum
workers of Azerbaijan] Gidravlicheskiy razryv plasta; opyt
neftianikov Azerbaidzhana. Moskva, Gos.nauchno-tekhn.isd-vo
neft. i gorno-toplivnoi lit-ry, 1959. 69 p. (MIRA 12:7)
(Oil wells--Hydraulic fracture)

12.10.1957
GRIGOR'YEV, Vitaliy Ivanovich; SIDOROV, Nikolay Aleksandrovich; SHISHCHENKO,
R.I., prof., doktor tekhn.nauk, red.; PETROVA, Ye.A., inzh., vedushchiy
red.; POLOSINA, A.S., tekhn.red.

[Controlling deflection of well shafts in turbodrilling] Bor'ba
s iskrivleniem stvolov skvazhin v turbinnom burenii. Pod red.R.I.
Shishchenko. Moskva, Gos.nauchno-tekhn.izd-vo nefi i gorno-toplivnoi
lit-ry, 1957. 87 p. (MIRA 10:12)
(Turbodrills) (Oil well drilling)

Call Nr: AF 1154274

AUTHORS: Faniyev, R. D., Mushin, A. Z.

TITLE: New Developments in the Technology and Technique of
Oil Production (Novoye v tekhnologii i tekhnike
dobychi nefti)

PUB.DATA: Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo
neftyanoy i gorno-toplivnoy literatury, Moscow, 1958,
100 pp., 3,000 copies

ORIG.AGENCY: None given

EDITOR: Petrova, Ye.A.; Tech.Ed.: Polosina, A. S.; Corrector:
Mukhina, Ye.V.

PURPOSE: This book is intended for the general use of oil
field workers.

COVERAGE: The authors discuss oil production problems for the
Sixth Five-Year-Plan and the introduction of new methods
of developing oil fields involving artificial main-

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Call Nr AF 1154274

New Developments in the Technology and Technique (Cont.)

tenance of pressure, hydraulic fracturing, chemical treatment of oil-bearing formations, etc. Automation, mechanization and dispatching are also discussed. The following personalities are mentioned in the text: A. M. Grigoryan (VNIIburneft'), K. I. Kovalenko (Bashneft'), Ashkurov and Gubanov (Giprovostokneft'), V. A. Shpak (contrib. in 1934), Yu. M. Kolodyazhnyy (designer of a torpedo perforator), Minin, Chefranov and Pogarskiy (inventors of pipeless hydraulic drill), F. G. Baronyan and S. A. Vezirov (engineers). Facilities mentioned include: Giproazneft', Giprospetsneft', OKB, Institut Nefti AN SSSR, Moscow Oil Institute im. akad. I. M. Gubkin, AzNII ND, VNII, LenNII, GrozNII, Vodgeo, UkrVNIGNI, UfNII, IAT AN SSSR, NIL, TsNIL, KB NP, TsNIITEneft', VNIIGeofizika, TsNIL Azneftegeofiziki, Azinmash, Giproneftemash, and Soyuzgeoneftepribor. There are no references.

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AVAILABLE: Library of Congress

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DUKHININ, Aleksey Pavlovich, dotsent [deceased]; SOLOV'YEV, Yevgeniy Matveyevich, dotsent. Prinimel uchastiye: BORISENKO, L.V., kand.tekhn.nauk. TIMOFEYEV, N.S., inzh., retsenzent; PETROVA, Ye.A., vedushchiy red.; FEDOTOVA, I.G., tekhn.red.

[Drilling oil and gas wells] Burenie neftiannykh gazovykh skvazhin. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1959. 495 p. (MIRA 12:11)
(Oil well drilling)

PETROV, Andrey Ivanovich; DROBAKH, Viktor Terent'yevich; PETROVA, Ye.A.,
vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Measuring pressures and fluid and gas losses in oil fields]
Izmereniya davleniya i raskhodov zhidkosti i gaza na neftyanykh
promyslakh. Moskva, Gos.nauchno-tekhn.izd-vo nef. i gorno-
toplivnoi lit-ry, 1959. 178 p. (MIRA 13:1)
(Oil fields--Production methods)

GOVOROVA, Galina Leonidovna; BORISOV, Yu.P., kand.tekhn.nauk, retserzent;
PETROVA, Ye.A., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Problems on the production of oil and gas fields] Sbornik
zadach po razrabotke nefiannykh i gazovykh mestorozhdenii.
Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry,
1959. 242 p. (MIRA 13:1)
(Oil fields--Production methods)

YENIKYEV, Vadim Rakhmeyevich; PETROVA, Ye.A., vedushchiy red.;
MUKHINA, E.A., tekhn.red.

[Automatic scrapers for dewaxing hoisting pipes] Avtoma-
ticheskie skrebki dlia ochistki podzemnykh trub ot parafina.
Moskva, Gos.nauchno-tekhn.izd-vo nef. i gorno-toplivnoi lit-ry.
1960. 81 p. (MIRA 13:3)
(Pipe--Cleaning) (Paraffins)

RAVASH, G. [RAVAS, GH.],; LEBEDEV, M.Ya., KARYAGIN, I.D., kand.
ekon. nauk, red.; PETROVA, Ye.A., ved. red.; POLOSINA, A.S., tekhn. red.

[History of the Romanian petroleum industry] Iz istorii rumynskoi
nefti. Pod red. I.D.Karlagina. Moskva, Gos. nauchno-tekhn. izd-vo
neft. i gorno-toplivnoi lit-ry, 1958, 240 s. (MIRA 11:10)
(Romania--Petroleum industry)

INOCHKIN, Petr Trofimovich; PROKSHITS, Viktor Leont'yevich; PETROVA, Ye.A.,
vedushchiy red.; ~~FEDOTOVA~~, I.G., tekhn. red.

[Manual of the master driller] Spravochnik burovogo masters. Moskva,
Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1958.
378 p. (MIRA 11:10)

(Oil well drilling)

12: A. F. ...
ALIYEV, Teymur Movsum Ogly, MIRZOYAN, Sergey Semenovich; ARENSON, R.I.,
retsensent, redaktor; LAVRUSHKO, P.N., retsensent, KORNEV, M.I.,
redaktor; ~~RETROVA~~, Ye.A., vedushchiy redaktor, TROPIMOV, A.V.,
tekhnicheskii redaktor

[Machines and mechanical devices for petroleum production] Mashiny
i mekhanizmy dlia dobychi nefti. Moskva, Gos. nauchno-tekhn. izd-vo
neft. i gornoo-tovlivnoi lit-ry, 1967, 261 p. (MLRA 1967)
(Petroleum industry: Equipment and supplies)

BAKIROV, Abdukhalat Abdullatynovich; ~~PETROVA~~ Ye. A., vedushchiy redaktor;
MUKHINA, B. A., tekhnicheskiiy redaktor

[Geology of areas possessing petroleum and natural gas, and oil
fields in the middle and Near East] Geologiya neftegazonosnykh
oblastei i neftianye mestorozhdeniia Srednego i Blizhnego Vostoka.
Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry,
1957. 101 p. (MLRA 10:6)
(Near East--Petroleum geology)

PE T ROVA, Ye. A.

YUROVSKIY, Yuriy Mikhaylovich; PETROVA, Ye. A., inzhener, vedushchiy
redaktor; MUKHINA, E. A., tekhnicheskiy redaktor

[Gas analysis method of oil and gas well logging] Gazovyi karottazh
skvazhin. Moskva, Gos.nauchno-tekhn.izd-vo nef. i gorno-toplivnoi
lit-ry, 1957. 157 p. (MLRA 10:7)
(Oil well logging)

SUSLENNIKOV, Nikolay Mikhaylovich; SYROMYATNIKOV, Yevgeniy Sergeyevich;
~~PETROVA, Yera~~, vedushchiy redaktor; KHLBNIKOVA, L.A.,
tekhnicheskiiy redaktor

[Practical instruction in progressive methods of boring; work
practices of instructors at the Kuybyshev Petroleum Trust
enterprises] Proizvodstvennoe obuchenie peredovym metodam bureniia;
opyt raboty instruktorskikh vakht na predpriiatiakh ob"edineniia
Kuibyshevneft'. Moskva, Gos. nauchno-tekhn. izd-vo nef. i gorno-
toplivnoi lit-ry, 1957. 63 p.

(MLRA 10:5)

(Oil well drilling)

PETROVA, Ye. A.

KOVALEV, Aleksandr Georgiyevich; GEYMAN, M.A., redaktor; ~~PETROVA, Ye.A.~~
vedushchiy redaktor; TROFIMOV, A.V., tekhnicheskii redaktor

[Flooding of oil fields in the United States] Zavodnenie neftianyykh
plastov v SSHA. Moskva, Gos. nauchno-tekhn. izd-vo neft. i
gorno-toplivnoi lit-ry, 1957. 109 p. (MLRA 10:5)
(United States--Oil field flooding)

UMANSKIY, Moisey Mikhaylovich; BROYDE, I.M., redaktor; ~~PETROVA, Ya.A.~~
vedushchiy redaktor; TROFIMOV, A.V., tekhnicheskii redaktor

[Ways of reducing the cost of petroleum production] Puti snizheniia
sebestoimosti dobychi nefi. Moskva, Gos. nauchno-tekhn. izd-vo
neft. i gorno-toplivnoi lit-ry, 1957. 101 p. (MLRA 10:5)
(Petroleum industry--Costs)

IL'SKIY, Aleksandr Loneinovich; KOS'YANOV, V.M., kandidat tekhnicheskikh nauk, retsenzent; ANDREYEV, M.M., dotsent, retsenzent; ~~PEREDOVA~~, Ye.A., inzhener, vedushchiy redaktor; POLOSINA, A.S., tekhnicheskiiy redaktor

[Calculation and construction of boring equipment] Raschet i konstruirovaniye burovogo oborudovaniya. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1957. 551 p. (MLRA 10:3)
(Boring machinery)

ZUSMAN, M.N.; PODOBEDOV, M.S.; PETROVA, Ye.A.; YAKUBENKO, Z.I.

Intensifying tarpaulin duck impregnation and dyeing processes.
Tekst.prom. 15 no.12:43-46 D '55. (MLRA 9:3)
(Duck (Textile)) (Dyes and dyeing)

BARSHAY, Georgiy Sergeyevich; BUYANOVSKIY, Naum Il'ich; GEL'FGAT, Ya.A.,
redaktor; PETROVA, Ye.A., vedushchiy redaktor; POLOSINA, A.S.,
tekhnicheskii redaktor

[The technique of rapid turbodrilling] Tekhnika skorostnogo
turbinного бурения. Moskva, Gos.nauchno-tekhn. izd-vo nef'tianoi
i gorno-toplivnoi lit-ry, 1956. 333 p. (MIRA 9:8)
(Turbodrills)

TVOROGOVA; BADAMYAN; KURNOSOV, M.A.; ZAGATIN, M.F.; RHYTMAN, I.M., redaktor;
PETROVA, Ye.A., redaktor; TROFIMOV, A.V., tekhnicheskii redaktor

[Catalog of spare parts for petroleum equipment] Katalog zapasnye k
neftianomu oborudovaniyu. Moskva, Gos.nauchno-tekhn.isd-vo neftia-
noi i gorno-toplivnoi lit-ry. Pt.2.[Equipment for drilling wells.
Section 1. Drill winches. No.2. Four-speed drill winch, model L1-4M2]
Oborudovanie dlia burenia skvazhin. Section 1. Lebedki burovye.
No.2. Lebedka chetyrekhskorostnaia L1-4M2. 1955. 33 p. Pt.3. [Equip-
ment for operating wells. Section 2. Deep well non-insert (pipe)
pumps. No.4. NGN2-56. Section 3. Deep well insert pumps. No.5. NGN3-
56 3"-1800 (NGB1-56)] Oborudovanie dlia ekspluatatsii skvazhin.
Section 2. Nasosy glubinnye nevstavye (trubnye). No.4. NGN2-56.
1955. 15 p. Section 3 Nasosy glubinnye vstavye. No.5. NGN3-56 3"-
1800 (NGV1-56). 1955. 10 p. (MIRA 9:3)

1. Soyuznefteburmashremont, Gosudarvennyy soyuznyy trest.
(Oil well pumps) (Petroleum industry--Equipment and supplies)

KOROTAYEV, Yuriy Pavlovich; POLYANSKIY, Aleksandr Petrovich; PETROVA, Ye.A.,
ved. red.; POLOSINA, A.S., tekhn. red.

[Exploitation of gas wells] Eksploatatsiia gazovykh skvazhin;
prakticheskoe rukovodstvo. 2., dop. i perer. izd. Moskva, Gos.
nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 382 p.
(MIRA 14.11)

(Gas wells)

BLINOVSKIY, A.A.; BUSLOVA, N.A.; YEROKHOV, N.F.; IVANOV, K.A.; KITAYEVA,
G.V.; LEYBOSHITS, L.M.; NEDELYAYEV, I.A.; PALLADIYEVA, M.V.;
PEVZNER, L.M.; PETROVA, Ye.D.; ROGOVSKIY, N.M.; RUDNYI, M.M.;
SMIRNOV, B.F.; DENISOVA, I.S., red.; RAKOV, S.I., tekhn.red.

[Through our land; tourist sites and itineraries of the Moscow
Interprovince Tour Administration of the All-Union Central
Council of Trade Unions] Po rodnoi zemle; turistskie bazy i
marshruty Moskovskogo mezhhoblastnogo turistsko-ekskursionnogo
upravleniya VTsSPS. Moskva, Izd-vo VTsSPS Profizdat, 1959.
154 p. (MIRA 13:4)

1. Moskovskoye mezhhoblastnoye turistsko-ekskursionnoye upravleniye
Vsesoyuznogo tsentral'nogo soveta profsoyuzov (for all, except
Denisova, Rakov).
(Tourism) (Steamboat lines)

PETROVA, Y. F.: Metals in Sol (Solid) -- Effect of Solubility on the Thermodynamic Activity of Carbon Dissolved in Solid Sol. Moscow, 1964. 14 p. (Main Abstr. of Solids and Ion Communications of the Academy of Sciences, Central Solids Inst. of Physics Metallurgy, Inst. of Metallurgy and Chemistry of Metals), Metallurg (ML, Moscow, 1964, 1965).

13(3)

AUTHORS:

Petrova, Ye. F., Lapshina, M. I., Savitskaya, L. A.

TITLE:

The Solubility of Carbon in Alpha-Iron (Rastvornost' ugle-
v al'fa-zheleze)

PERIODICAL:

Doklady Akademii nauk SSSR, 1978, Vol. 111, No. 11, 1621-1623
(USSR)

ABSTRACT:

The authors developed a thermodynamical method for the accurate determination of the concentration of carbon in the solid solution. By combination with other data, the solubility of carbon in ferrite (in the equilibrium with cementite at low temperatures and also in equilibrium with γ -iron at higher temperatures) was calculated. The method investigated in this paper is characterized by the fact that the content of carbon in the iron may be determined without a chemical analysis. The carrying out of the measurements and the measuring apparatus are discussed in short. These experiments have a linear dependence of

$$x = \frac{P_{CO}^2}{P_{CO_2}} \text{ on } [\%C] \cdot 100 \text{ and } P_{CO_2} \text{ denote the partial}$$

Card 1,3

pressures of CO and CO₂ in the equilibrium and $[\%C]$ denotes

The Solubility of Carbon in Alpha-Iron

SOV/10-101-1-1 20

the content of carbon in iron (percent weight). Therefore the equilibrium constant $K_a = \frac{P_{CO}^2}{P_{CO_2}} \left[\% C \right]_a$ does not depend on the concentration of carbon. K_a was measured in the temperature interval $700 - 900^\circ$. In a diagram (Fig. 2) the results of these measurements are given in the coordinates $\lg K_a$ and $(1/T)$. The experimental points agree well with a straight line which satisfies the equation $\lg K_a = -(3340/T) + 5.13$. Therefore, the reaction $C + CO_2 \rightleftharpoons 2CO^\alpha$ has a negative Joule effect, the value of which amounts to 14820 cal/mol. The above-discussed results may be used for the determination of the boundaries of the α -phase in the iron-carbon system. First, the manner of determining the solubility of carbon below eutectoid temperature is discussed. After some steps, the following expression is found for the solubility of carbon in α -iron: $\lg \left[\% C \right]_a^H = -(4509/T) - 2.25 \cdot 10^{-4} T + 5.1$.

The results of the calculations carried out by means of these equations are given in a table. According to these results, the solubility of carbon in α -iron at the eutectoid temperature is very similar to 0.030 weight %. Other diagrams show

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The Solubility of Carbon in Alpha-Iron

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the data concerning the solubility of carbon, found by measuring internal friction. Also these results agree satisfactorily with the generally accepted values. The results obtained with respect to the solubility of carbon seem to be more reliable than those found by the method of internal friction. The results of this investigation may be used for the calculation of the concentrations of carbon in α -iron in equilibrium with austenite at temperatures above eutectoid temperature. There are 3 figures, 1 table, and 2 references, 1 of which is Soviet.

ASSOCIATION: Institut metallovedeniya i fiziki metallov Tsentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii (Institute of Metallography and Physics of Metals of the Central Scientific Research Institute of Ferrous Metallurgy)

PRESENTED: April 24, 1958, by G. V. Kurdjumov, Academician

SUBMITTED: April 21, 1958

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PETROVA, YE. F.

24(8) MASS I BOOK EXPLOITATION SOV/2117
Soveshchaniye po eksperimental'noy tekhnike i metodam vysokotemperaturnykh issledovaniy, 1956

Experimental'naya tekhnika i metody issledovaniy pri vysokikh temperaturakh. Trudy sovetskoy tekhnicheskoy konferentsii po eksperimental'noy tekhnike i metodam issledovaniy pri vysokikh temperaturakh. Konferentsiya po eksperimental'noy tekhnike i metodam issledovaniy pri vysokikh temperaturakh. Akademiya nauk SSSR. Institut metalurgii. Komissiya po fiziko-khimicheskim osnovam proizvodstva stali. 2,000 copies printed.

Resp. Ed.: A.M. Semarin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A.L. Bannikova.

PURPOSE: This book is intended for metallurgists and metallurgical engineers.

COVERAGE: This collection of scientific papers is divided into six parts: 1) thermodynamic activity and kinetics of high-temperature processes; 2) constitution diagram studies; 3) physical properties of liquid metals and alloys; 4) new analytical methods and production of pure metals; 5) pyrometry; and 6) general questions. For more specific coverage, see Table of Contents.

TABLE OF CONTENTS:

I. DETERMINATION OF THERMODYNAMIC ACTIVITY AND METHODS OF INVESTIGATING THE KINETICS OF HIGH-TEMPERATURE PROCESSES

Gel'd, P.V. Methods of Investigating the Kinetics and Equilibrium Characteristics of Certain Heterogeneous Reactions. The kinetics are investigated by: 1) studying the change in weight of condensed reagents with time; 2) studying changes in pressure and volume of gas; and 3) other methods (thermographic, dilatometric, electrical, and magnetic). Equilibria are investigated by: 1) static methods (manometric methods, circulation methods, study of saturation of condensed phases, and contraction methods); and 2) dynamic methods (1/2 method of pressure, thermal methods, and study of vaporization rate).
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Experimental Techniques and Methods (Cont.) SOV/2117

Shvartsman, L.A. Method of Determining Thermodynamic Activity in Metal Solutions. Thermodynamic activity was determined on the basis of the following: measurement of vapor pressure, refractory-plate method, solubility data, data on chemical equilibrium of solutions in the presence of gaseous mixtures, measurement of the electromotive force of voltaic cells, and data on the distribution of two liquid phases.

Petrova, Ye.F., and L.A. Shvartsman. Effect of Alloying Elements on the Thermodynamic Activity of Carbon in Gamma Iron. A method was developed for determining the thermodynamic activity of carbon in solid solutions. Data were obtained on the effect of addition of manganese, chrome, vanadium, and titanium on the activity of carbon in gamma iron. All these elements markedly decrease the activity of carbon in comparison with nonalloyed austenite. This indicates that the bond strength of carbon dissolved in gamma iron is considerably increased upon introduction of carbide-forming elements into a solid solution. The strongest effect on the activity of carbon, determined by the position of the investigated elements in the periodic table, was produced by titanium, and the weakest by manganese. The quantitative difference in the effect of titanium, vanadium, and chrome is small and approaches the accuracy of the measurements.

S/137/62/000/005/005/150
A006/A101

AUTHORS: Petrova, Ye. P., Shvartsman, L. A.

TITLE: The effect of alloying elements upon the thermodynamic activity of carbon in gamma-iron

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1963, 9, abstract 5458
("Sb. tr. In-t metalloved. i fiz. metallov Tsentr. n.-i. In-ta
chernoy metallurgii", 1959, v. 6, 259-292)

TEXT: To determine the C content in γ -Fe directly during the experiment without removing the specimen from the unit, the circulation method was employed that had been developed by M. I. Temkin and his collaborators ("Zh. fiz. khimii", 1949, v. 23, 695). The equilibrium of the reaction $C(\text{dissolved in Fe}) + CO_2 = 2CO$ was attained as a result of pure CO circulation in a closed, preliminarily evacuated circuit, into which a carbonfree Fe sample was placed at constant controlled temperature. After the equilibrium had been attained, CO_2 was frozen out, CO was evacuated and partial CO_2 pressure was determined by measurement with the Mac-Leod manometer. The weight of C dissolved in the Fe-specimen was determined from the amount of CO_2 . Greater CO pressures were measured with the

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A006/A101

The effect of alloying elements ...

aid of a conventional U-shaped manometer with microscopical reading of the mercury column level. The experiments were carried out with small batches of Fe-foil, 0.08 - 0.05 mm thick, so that the time for attaining the reaction equilibrium could be considerably reduced (to 6 - 7 hours). A schematic drawing and a detailed description of the unit are given. Results on the temperature dependence of equilibrium constant K for pure Fe are in a satisfactory agreement with Smith's data (Smith, R., "Amer. Chem. Soc", 1946, v. 68, no. 7, 1163). For Fe alloys with 3% Mn (0.112% C) 1 or 0.28% Cr (0.0265% C), 0.4% V (0.042% C), 0.70% Ti (0.024% C), investigated at 930 - 1,080°C, dependences $\lg K^{\text{Fe}}$ versus $1/T$ and the coefficients of C activity were found, equal to 0.58, 0.55, 0.86 and 0.55 respectively. All the elements investigated reduce noticeably the thermodynamical activity of C in the austenite. The dependence of the coefficient of C activity on the concentration of the alloying elements is relatively low, and apparently of a logarithmic nature. There are 27 references.

I. Levtonov

[Abstracter's note: Complete translation]

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E073/E535

Influence of Alloying Elements on the Thermodynamic Activity and the Solubility of Carbon in α -iron

admixtures. In this case the equilibrium constant of the reaction $C + CO_2 = 2CO$ does not depend on the carbon concentration in the metal. Equations are derived governing the solubility of carbon in alloys of α -iron with cobalt. Eqs (12)-(14). By means of these equations, the solubility values were calculated for three alloys with various cobalt contents as a function of the temperature and these are plotted in Fig 1, for comparison the solubility curve for pure ferrite is also plotted in this figure. The presence of manganese in α -iron reduces the activity of the carbon and consequently the solubility should increase. Assuming that the iron carbide, which is rejected in the studied alloys, does not contain manganese, the solubility of carbon in these alloys can be calculated in the same way as was done for the Fe-Co system; the resulting equations are Eqs (18) and (19). It can be

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E073/E535

Influence of Alloying Elements on the Thermodynamic Activity and the Solubility of Carbon in α -iron

seen that the addition of manganese to the α -iron increases its solubility of carbon. Results calculated on the basis of Eq (18) are graphed in Fig 2 (variation of the solubility of carbon in Fe-Mn alloys as a function of the temperature for various manganese contents). The influence of silicon and chromium on the behaviour of carbon in α -iron was investigated by determining the respective activity coefficients. The results obtained by the authors indicate that cobalt increases the activity of carbon in the α -iron and this is also the case for silicon. However, carbide forming elements of the transition group Mn and Cr, which interact with iron only slightly, bring about a reduction in the activity of carbon in the α -iron. In earlier work (1) the same qualitative results were obtained on the influence of carbide forming elements on the activity

of carbon in α -iron.

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S/129/60/000/04/004/020
E073/E535

Influence of Alloying Elements on the Thermodynamic Activity and
the Solubility of Carbon in α -iron

There are 3 figures and 2 references, 1 of which is
Soviet and 1 English.

ASSOCIATIONS: Tsentral'nyy nauchno-issledovatel'skiy institut
chernoy metallurgii (Central Scientific Research Institute
for Ferrous Metallurgy) and Vsesoyuznyy zaochnyy
mashinostroitel'nyy institut (All Union Correspondence
Mechanical Engineering Institute)

Card 4/4

VIROVTSIA, A.M., prof.; MAUYERER, V.G., inzh.; TROITSKIY, B.V., inzh.;
IVANOV, V.F., inzh.; PETROVA, Ye.F., inzh.; BARVENKO, Ye.I.,
inzh.; SHISHKIN, V.N., inzh.

[Tables of Gauss-Kruger coordinates for latitudes 32° - 80°
at 5' intervals and for longitudes 0° - 6° at 7 1/2' intervals
and tables of side and area dimensions of trapezoids in to-
pographic surveys; Krasovskii's ellipsoid] Tablitsy koordinat
Gausa-Kriugera dlia shirct ot 32° do 80° cherez 5' i dlia
dolgot ot 0° do 6° cherez 7 1/2' i tablitsy razmerov ramok i
ploshchadei trapetsii topograficheskikh s"emok ellipsoid
Krasovskogo. 2. izd., ispr. i dop. Moskva, Izd-vo geodez.
lit-ry, 1961. 512 p. (MIRA 15:9)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i
kartografi.

(Coordinates)

11700
S/032/62/028/011/004/015
B104/B102

AUTHORS: Petrova, Ye. F., and Shvartman, L. A.
TITLE: Determination of carbon activity in solid iron
PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 11, 1962, 1334 - 1337
TEXT: A method of determining the thermodynamic activity of carbon in iron by means of C^{14} in one experimental operation on several samples is described. The experimental arrangement consists of two parts: In one part of the apparatus an iron specimen containing a certain quantity of carbon tagged with C^{14} is placed in a transparent quartz tube to serve as a standard. In the other part, annular samples of pure iron free from carbon are placed in a quartz tube. The tube containing the samples is put in a furnace. Before the experiment, both tubes are evacuated in the cold state and are then annealed at $\sim 10^{-5}$ mm Hg for about 24 hrs; after annealing, the experimental setup (Fig. 1) is filled with hydrogen (300 mm Hg), and the furnace is kept at a certain temperature. The circulation of hydrogen produces methane, the composition of which, after reaching

Card 1/1

S/032/62/028/011/004/015
B104/B102

Determination of carbon activity...

equilibrium, depends only on the temperature of the standard and on the concentration of the carbon contained in it. The composition is characterized by $r = P_{CH_4}/P_{H_2}$, where P_{CH_4}, P_{H_2} are the partial pressures. r can be

exactly determined by the method of R. P. Smith (J. Am. Chem. Soc., 68, 7, 1163 (1946)). The equilibrium gas mixture circulates over 10 - 12 iron samples free from carbon, so that carbon diffuses into the samples. After the experiment, the radioactivities of the standard and of the samples are compared whereby the carbon concentration in the samples is accurately determined. This supplies the data needed for finding the thermodynamic activity of carbon in the usual way, based on the reaction $[C] + 2H_2(g)$

$= CH_4(g)$ with the aid of the law of mass action. There are 3 figures and 1 table.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I. P. Bardina (Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardina)

Card 2/4

S/C2C/62/146/003/C17/C19
B101/B144

AUTHORS: Petrova, Ye. F., Shvartsman, L. A.

TITLE: Thermodynamics of solid solutions in the system Fe - Ni - C

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 146, no. 3, 1968, 646-648

TEXT: The results obtained by R. P. Smith (Trans. Met. Soc. AIME, 218, 62 (1960)) stating that the carbon in solid solutions of the system Fe - Ni containing ~75 atom% Ni shows a minimum of solubility at 1000°C were checked. Experiments were performed on an iron-nickel alloy containing 73.5% Ni and on pure nickel, from which the constant $K = \frac{P_{CO}^2}{P_{CO_2} [\%C]} = r^0 [\%C]$ was calculated at 850, 900, 950, 1000, and

1050°C, where $[\%C]$ is the carbon dissolved in the solid solution in % by weight. It was found for pure nickel: $-RT \ln [\%C] = \Delta G^0 = 9700 - 4.95T$, while the following holds for the Fe-Ni alloy: $-RT \ln [\%C] = \Delta G^0 = 8370 - 3.60T$. The heat of solution of carbon in the Fe-Ni alloy is lower than its heat of solution in pure nickel. The decrease in entropy of dissolution of C in the alloy accounts for the decrease in solubility

Card 1/2

s/020/62/146/003/017/019
3101/3144

Thermodynamics of solid solutions ...

of C in the alloy. The cause of this decrease in entropy is an ordering of the alloy which renders incorporation of carbon in the lattice more difficult. There is 1 figure. The most important English-language references are: F. Richardson, J. Iron and Steel Inst., 175, 257 (1953); B. Fleischer, J. F. Elliott, The Physical Chem. of Metallic Solutions and Intermetallic Compounds, Nat. Phys. Lab. Symposium, no. 2, 1, paper 2F, London, 1959.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I. P. Bardina (Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardin)

PRESENTED: February 14, 1962, by G. V. Kurdyumov, Academician

SUBMITTED: February 12, 1962

Card 2/2

PETROVA, Ye. F.

"Some data on the mosquitoes and flies of the central part of Jetpak-Dal," Med. parazitologiya i parazitarnye bolezni, 1948, No. 6, p. 527-30

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

PETROVA, Ye.F.

Horseflies of the Lower Chu Valley. Trudy Inst.zool. AN Kazakh. SSR.
1:108-111 '53. (MLRA 10:1)
(Chu Valley--Horseflies)

PETROVA, Ye.F.

Materials on the ticks of the family Ixodidae parasitic on farm
animals of the Bet-Pak-Dala pasture complex. Trudy Inst.zool.AN
Kazakh.SSR 3:44-46 '55. (MLRA 9:12)
(Bet--Pak-Dala--Ticks as carriers of disease)
(Parasites--Domestic animals)

RYBALKO, S.I.; PETROVA, Ye.F.; PRIKHOD'KO, Ye.T.

Effect of DDT dust and dimethylphthalate in controlling ixodid ticks
in a focal area of tick-borne encephalitis. Med.paraz. i paraz.bol.
27 no.6:733 M-D '58. (MIRA 12:2)

1. In Respublikanskoy sanitarno-epidemiologicheskoy stantsii Mini-
sterstva zdoravookhraneniya Kazakhskoy SSR.
(DDT) (PHTHALIC ACID) (TICKS)

RYBAIKO, S.I.; PETROVA, Ye.F.; PRIKHOD'KO, Ye.T.

Epidemiology of tick-borne encephalitis in East Kazakhstan
Province. Trudy Inst.zool.AN Kazakh.SSR 12:43-53 '60.
(MIRA 13:7)

(East Kazakhstan Province—Encephalitis)
(Ticks as carriers of disease)

1. The first part of the document is a letter from the

author to the editor of the journal, in which the author

states that the article is a translation of a paper

presented at the 1975 Boardman Conference on the

RYBALKO, S.I.; PETROVA, Ye.F.; PRIKHOD'KO, Ye.T.

Tick-borne encephalitis in eastern Kazakhstan. Trudy Inst. zool.
AN Kazakh. SSR 19:234-237 '63. (MIRA 18:9)
(Katon-Karagay District—Encephalitis)
(Katon-Karagay District—Ticks as carriers of disease)

PETROVA, Ye.F.; SHVARTSMAN, L.A.

Thermodynamics of solid solutions in the system Fe - Ni - C.
Dokl. AN SSSR 146 no.3:646-648 S '62. (MIRA 15:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii
im. I.P.Bardina. Predstavleno akademikom G.V.Kurdyumovym.
(Iron-nickel-carbon alloys)

PETROVA, Ye.G.

Stock protection and legal size limit for bream (*Abramis brama*
L.) in the Azov-Don Basin. Vop. ikht. 3 no.3:472-476 '63.
(MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo
rybnogo khozyaystva i okeanografii VNIRO, Moskva.
(Azov, Sea of--Bream) (Don River--Bream)

PETROVA, Ye.G.

Electrophysiological characteristics of efferent and afferent impulses in the augmentor nerve of the heart. Trudy Inst.fiziol. 8:388-394 '59. (MIRA 13:5)

1. Laboratoriya elektrofiziologii (zaveduyushchiy - V.Ye. Delov)
Instituta fiziologii im. I.P. Pavlova AN SSSR.
(HEART--INNERVATION)

CHUGUNOVA, N.I.; PETROVA, Ye.G.

Adaptive characteristics of the spawning of the Black Sea anchovy (maturation and fertility). Vop.ikht. no.1:68-72 '53. (MLRA 7:6)
(Black Sea--Anchovies) (Anchovies--Black Sea)

PETROVA, Ye.G.

Afferent and efferent impulses in the intensifying nerve of the heart in insufficient coronary blood circulation. Hauch. soob. Inst. fiziol. AN SSSR no.1:156-157 '59. (MIRA 14:10)

1. Laboratoriya elektrofiziologii (zav. - V.Ye.Dalov) Institute fiziologii imeni Pavlova AN SSSR.
(CORONARY HEART DISEASE) (NERVES, CARDIAC)

PETROVA, Ye.G.

Fecundity and maturation of the Baltic sprat. Trudy VNIRO
42:99-108 '60. (MIRA 13:9)
(Baltic Sea--Sprats)

PETROVA, Ye.G.

Correlation of unconditioned and conditioned reflexes from the digestive system on the heart. Trudy Inst. fiziol. 3:316-322 '54.

(MLRA 8:2)

1. Laboratoriya elektrofiziologii. Zaveduyushchiy V.Ye.Delov.

(HEART, physiology,

eff. of gastrointestinal stimulation)

(GASTROINTESTINAL SYSTEM, physiology,

eff. of stimulation on heart)

NOTKINA, M.A.; FETROVA, Ye.I.; CHERKASHINA, T.V.; CHERNIKHOV, Yu.A.

Concentration of impurities in the analysis of high-melting metals
(titanium, tantalum, niobium, and vanadium). Trudy Kom. anal. khim.
15:80-87 '65. (MIRA 18:7)

1ST AND 2ND CODES										3RD AND 4TH CODES									
PROCESSES AND PROPERTIES INDEX																			
CR										10									
Polymerization of styrene in a field of high-frequency current. N. V. Shurygin and R. I. Petrenko. <i>J. Gen. Chem. (U.S.S.R.)</i> 19, 173-8 (1948) (English summary). — It was shown that high-frequency currents (wavelength of about 1 meter) have a pos. effect on styrene polymerization. The inhibiting effect of O₂ is increased under these conditions.																			
Lab. Org. Catalytic Chem. Faculty, Moscow State U																			
150-51.6 METALLURGICAL LITERATURE CLASSIFICATION										6-ET-172-1457C									
10000 000000										10000 000000									
10000 000000										10000 000000									

PETROVA, YE. I.

"Investigation of the Diffusion of Gases in the Human-Lung Model."
Moscow-on-Don State Medical U., Moscow, 1958.
... . Brunze, Chair of Chemistry, Leningrad, 1958.
(Dissertation for the degree of Candidate of Medical Sciences

SC: 'Nizhnaya Letayish', No. 1, 1958.

Pe Grova, D.I.

olw

3649. Compleximetric determination of nickel, magnesium, zinc and manganese in the presence of titanium. B. M. Dobkina and R. I. Petrova. *Zavod. Lab.*, 1956, 23 (5), 525-527. *Determination of nickel*—The sample (0.5 g of Ti) is dissolved in 50 ml of conc. HCl; a few drops (>10) of conc. HNO₃ are added to destroy the purple colour; oxides of N are boiled off and the soln. is diluted with dil. HCl (1 + 89) to 250 ml in a calibrated flask. A 25-ml aliquot diluted to 100 ml is treated with 2 ml of 50 per cent tartaric acid soln., neutralised to litmus with aq. NH₃, followed by an additional 1 to 2 ml of aq. NH₃, and then treated with 0.4 g of murexide (1 + 500 parts of NaCl). After 3 to 5 min. the pinkish-yellow soln. is titrated with 0.05 or 0.025 M EDTA to a stable pinkish-violet colour. *Determination of magnesium or zinc*—Although Ti gives a complex with Eriochrome black T, its formation is relatively so slow that Mg and Zn, which form complexes instantaneously, can be titrated with EDTA in the presence of this indicator in soln. of Ti. The sample is treated as described above up to the neutralisation with aq. NH₃. The soln. is then mixed with 2 ml of aq. NH₃, 1 ml of 10 per cent hydroxylamine soln. and 0.2 g of Eriochrome black T (1 + 200 parts of NaCl) and titrated for Mg or Zn with EDTA. *Determination of manganese*—The method is the same as for Mg or Zn except that the addition of hydroxylamine is omitted and 2 to 3 mg of ascorbic acid are added after the indicator. The content of Fe must not exceed 0.5 per cent. in the determination of Mg or Zn, and 1 per cent. in the determination of Mn.

G. S. SMITH

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PETROVA, E.I.

3835. Determination of tantalum in titanium alloys by ultra-violet spectrophotometry. H. M. Dobkina and E. I. Petrova. *Zavod. Lab.*, 1957, 23 (4), 421-422. An application of the pyrogallol method is described. The sample (0.4 g) of titanium alloy is treated for 1 hr. in the cold with 50 ml of dil. HCl (1:4) and 5 ml of 20% NH_4F soln. and then heated until reaction ceases. After addition of ~20 drops of conc. HNO_3 the soln. is boiled to remove oxides of N; then cooled and diluted to 100 ml. A portion (50 ml) is heated with 50 ml of conc. HCl, 15 ml of water and 5 to 5 g of H_2O_2 , then treated with 100 ml of hot 2% tannic acid, boiled for 10 to 15 min. and set aside overnight. The ppt. is filtered off on paper pulp and washed five or six times with 0.5% tannic acid in 2% HCl. It is then ignited and fused with 3 g of $\text{K}_2\text{S}_2\text{O}_8$ with a few drops

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of conc. H_2SO_4 to give a transparent melt. The cooled melt is dissolved in 25 ml of 5% ammonium oxalate soln. and the soln. is diluted to 50 ml. Further dilution is necessary with contents of Ta < 5%. The diluting soln. contains 12.5% of ammonium oxalate and 35% of ortho-tic acid in conc. HCl. An aliquot containing between 25 and 500 ng of Ta is treated in the same way as the standards. These are obtained from a soln. containing 0.25 mg of Ta in 1 ml. From 0.5 to 1.5 ml of this soln. is diluted with the diluting soln. to 2 ml, then 1 ml of water followed at once by 5 ml of 5 N HCl and 2 ml of 20% pyrogallol soln. (prepared by dissolving 20 g of pyrogallol in 100 ml of water, 5 ml of conc. HCl and 1 ml of 2 M $SnCl_2$ in conc. HCl, filtering and keeping in the dark for 10 days) are added with intermediate mixing. After 10 to 15 min. the extinction at 320 m μ is measured. Of the interfering elements, Sb, W, Mo and U are absent in alloys of Ti and Nb gives a complex having an extinction one forty-fifth that of Ta.

G. S. Smith

for [signature]
MT

7/2

5(2)

AUTHORS:

Dobkina, B. M., Petrova, Ye. I.

SCV/32-25-9-11, 53

TITLE:

Determination of Tantalum Following the Reaction With Pyrogallol in the Presence of Tartaric Acid

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 9, pp 1064-1066 (USSR)

ABSTRACT:

The method mentioned in the title has been already applied as a variant of (Ref 1). In the present case, work is done under conditions which diminish the influence of titanium on the determination. The concentration of tartaric acid was chosen according to the thiocyanate method corresponding to the niobium determination, i.e. 8 mg/ml. The absorption curves of the complex compounds of Ta, Ti, and Nb (Fig 1), and the dependence of the optical density on the concentration of these elements (Fig 2) show that 5 - 35 μ /ml Ta_2O_5 may be determined with a maximum error of $\pm 3\%$. As the absorption varies directly as the concentration and the additivity of the optical properties of the pyrogallol complex compounds of Ta, Ti, and Nb, it is possible to determine Ta in the presence of larger quantities of Ti and Nb, allowing for appropriate corrections (Table 1).

Card 1/2

Determination of Tantalum Following the Reaction With SOV/32-25-9-11/53
Pyrogallol in the Presence of Tartaric Acid

According to the present method, for which working procedure references and a course of analysis are given, a technical niobium hydroxide of the following composition was analyzed: 1 - 5% Ta_2O_5 , 30 - 70% Nb_2O_5 , 2 - 30% TiO_2 , 0.5 - 10% Fe_2O_3 , 0.5-10% SiO_2 , and 2% Al_2O_3 approximately. The determination resulted without the prior separation of Ti, or Nb (Table 2, results of analyses). There are 2 figures, 2 tables, and 3 references, 1 of which is Soviet.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy institut redkikh i malykh metallov (State Scientific Research Institute of Rare and Minor Metals)

Card 2/2

CHERNIKHOV, Yu.A., DOBKINA, B.M., PETROVA, Ye.I.

Determination of zirconium from the reaction with pyrocatechol violet in titanium and its alloys. Zav.lab. 26 no.5:529-531 '60. (MIRA 13:7)
(Zirconium--Analysis) (Titanium--Analysis)

L 52280-65 EWT(m)/EPF(n)-2/ENG(m)/EPR/ENP(i)/ENP(b) Ps-l/Pu-l IJP(c)
JD/JG

ACCESSION NR: AT5012870

UR/2513/85/015/000/0080/0087 32

AUTHOR: Notkina, M.A.; Petrova, Ye. I.; Cherkashina, T.V.; Chernikhov, Yu. A. 31

TITLE: Concentration of impurities in the analysis of refractory metals (titanium, tantalum, niobium, and vanadium) 31

SOURCE: AN SSSR. Komissiya po analiticheskoy khimii. Trudy, v. 15, 1985. Metody kontsentrirvaniya veshchestv v analiticheskoy khimii (Methods of concentrating substances in analytical chemistry), 80-87

TOPIC TAGS: refractory metal analysis, titanium²⁷ analysis, tantalum²⁷ analysis, niobium analysis, vanadium²⁷ analysis, impurity concentration, spectroscopic analysis, diethyldithiocarbamate

ABSTRACT: To concentrate microquantities of impurities in the spectral analysis of refractory metals, the authors employed group extraction. In the case of Ti, Ta, and Nb, the impurities present in these elements were dissolved in a mixture of hydrofluoric and nitric acid, then extracted with sodium diethyldithiocarbamate. At pH 6.0-6.5 in the presence of fluoride ions and tartaric acid, 19 elements were extracted, including 14 to the extent of 85% or over: Cu, Ag, Au (III), Mn(II), Pb, Zn, Fe(III), Cd, Ni, Co. In, Ti(II), Ti(III), Bi(III), and Se(IV). Ga, V(IV), Pt(IV), and Sn(IV) were extracted to the extent

Card 1/2

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ACCESSION NR: AT5012670

of 50% or less, and Sb was not extracted because it was in the pentavalent state. Carbon tetrachloride or chloroform can be used for the extraction of the diethyldithiocarbamates. In the case of vanadium, the latter was converted to the pentavalent state, and extraction with diethyldithiocarbamate separated 13 elements: Cu, Ag, Au(III), Mn(II), Pb, Zn, Fe(III), Cd, Ni, Co, In, Tl(I), Tl(III), and Bi. Ga, Pt(IV), Sn(IV), Sb(V), and Se(IV) were not extracted. The concentrates obtained were analyzed photographically with a medium-dispersion quartz spectrograph (ISP-22 or ISP-25). Another successful method of concentration applicable to tantalum, niobium, and vanadium consists of extracting the base element (Ta with cyclohexanone from 0.4 M HF and 1.2 M H_2SO_4 ; Nb with amyl acetate from 11 N HCl; V with tributyl phosphate from 6 N HCl). The analytical procedure employed is described in full. Orig. art. has: 1 table and 1 formula.

ASSOCIATION: Komissiya po analiticheskoy khimii, AN SSSR (Commission on Analytical Chemistry, AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: 1G, MM

NO REF SOV: 003

OTHER: 004

2/2

PAL'CHUN, V.T., PETROVA, Ye.I.

Prevention of new pneumatic attacks within the immediate stage following tonsillectomy. Zhur. ush. nos. i gorl. bol. 23.
no.2:61-66 Mr-Ap'63. (MLA 16:2)

1. Iz kliniki bolezney ukha, gorla, nosa (direktor - doystvitel'nyy chlen AMN SSSR, zasluzhennyy deyatel' nauki prof. B.S. Preobrazhenskiy) lechebnogo fakul'teta 2-go Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

PETROVA, Ye.I.

Refractometric study of alkaline earth metal fluorides in aqueous solutions. Zhur.neorg.khim. 7 no.4:935-937 Ap '62. (MIRA 15:4)
(Alkaline earth fluorides) (Refractometry)

SECRET, Y.I.,,

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SECRET, Y.I.,,

DETAILS OF THE

Intelligence of the... in the preparation of...
... ..

(MIRA 2:8

YAKOVLEV, A.M.; KRASNOPEVTSEVA, O.S.; PUTERMAN-LIPPERT, F.E.;
PETROVA, Ye.K.

Bacteremia as one of the pathogenetic factors in burn disease.
Khirurgiia 38 no.10:34-40 O '62. (MIRA 15:12)

1. Iz Voenno-meditsinskoy ordena Lenina akademii imeni S.M.
Kirova.

(BURNS AND SCALDS) (BACTEREMIA)

VOROB'YEV, A.A.; VASIL'YEV, N.N.; SHEVELEV, V.M.; VORONOVA, Z.A.; PETROVA,
Ye.K.; BAZHENOVA, G.A.; ANDROSHCHENK, S.M.

Study of botulin anatoxins. Report No.5: Type D botulin anatoxin.
Zhur. mikrobiol., epid. i immun. ZO no.9:87-92 S163.

CHINA 17:50

MARKIN, A.P.; LUKIN, Ye.P.; PETROVA, Ye.K.; VOROB'YEV, A.A.

Study of botulin anatoxins. Report No. 3: Botulin anatoxin type.
Zhur.mikrobiol., epid.i immun. 32 no.12:96-99 D '61.

(MIRA 15:11)

(BOTULISM) (TOXINS AND ANTITOXINS)

BOKUCHAVA, M.A.; POPOV, V.R.; PETROVA, Ye.K.

Transformation of tanning substances in the production of green
brick-tea. Biokhim.chain.proizv.no.6:163-169 '50. (MLRA 9:7)
(Tannins) (Tea)

MORACHEVSKIY, Yu.V., red.; PETROVA, Ye.M., red.

[Methods of analysis of brines and salts] Metody analiza
rassolov i solei. Izd. 2., perer. i dop. Moskva, Khimiya,
1964. 403 p. (MIRA 17:11)

1. Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut
galurgii.

GEAMER, N.S.; LOPOV, Yu.N., red.; PETROVA, Ye.M., red.

Paleohydrogeochemistry of the northern part of Central Siberia
in the Late Paleozoic and Mesozoic. Paleogidrokhiimiia severa
Srednei Sibiri v pozdnem paleozoe i mezozoe. Moskva, Nedra,
1965. 119 p. (Leningrad. Nauchno-issledovatel'skii institut
geologii Arktiki. Trudy, vol. 142).

(MIRA 18:8)

MORACHEVSKIY, Yu.V., red.; PETROVA, Ye.F., nauchn. sotr., red.

[Methods of analyzing brines and salts] Metody analiza
rassolov i solei. izd.3., ispr. pod red. Yu.V. Morachev-
skogo i E.M. Petrovoi. Moskva, Khimiya, 1965. 403 p.

(MIRA 19:1)

1. Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy insti-
tut galurgii. 2. Vsesoyuznyy nauchno-issledovatel'skiy
institut galurgii, Leningrad (for Petrova).

YELANSKIY, N.N., prof.; PETROVA, Ye.M.

Clinical investigations of bactericidal enamels for medical
furniture. Khirurgiia 36 no.11:131-132 N '60.

(MIRA 13:12)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof.
N.N. Yelanskiy) i Moskovskogo ordena Lenina meditsinskogo
instituta imeni I.M. Sechenova.

(PAINT) (ANTISEPTICS)

(HOSPITALS—EQUIPMENT AND SUPPLIES)

YELANSKIY, N.N.; PETROVA, Ye.M.

Focal administration of antibiotics [with summary in French, p.64]
Antibiotiki 1 no.4:48-49 J1-Ag '56. (MLRA 9:11)

1. I Meekovskiy ordena Lenina meditsinskiy institut imeni I.M.
Sechenova.

(ANTIBIOTICS, admin.
focal)

PETROVA, Ye.M.

Using GAK-3M gravimeters. Razved. i prom. geofiz. no.16:52-57 '56.
(Gravimeter) (MLRA 10:8)

PETROVA, Ye. M.; YELANSKIY, N.I. (Prof.)

"Various Methods of Administration of Biomyxin in Surgical Practice,"

p. 369 Ministry of Health USSR Proceedings of the Second All-Union Conference on Antibiotics, 31 May - 1 June 1957. p. 405, Moscow, Medgiz, 1957.

CHISTOVA, M.A.; PETROVA, Ye.M.

Use of colimycin in a surgical clinic; preliminary report.
Antibiotiki, 2 no.2:57-60 Mr-Apr '57 (MLRA 10:5)

1. Fakul'tetskaya khirurgicheskaya klinika imeni N.N. Burdenko
(zav.-prof. N.N. Yelanskiy) I Moskovskogo ordena Lenina
meditsinskogo instituta.

(ANTIBIOTICS, ther. use

colimycin in surg.)

(SURGERY, OPERATIVE

colimycin ther. in)

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"Monoalkyl-Aminoalkyl Esters and Alkylalkylamines of Naphthalene Carboxylic Acids."
Thesis for degree of Cand. Chemical Sci. Sub. 28 Sep 49, All-Union Sci Res Chemophar-
maceutical Inst imeni Sergo Grazhdanizhe.

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

DETHLE Ve. N.

Dec. 47

USC /Chemistry - Pharmaceuticals

"(N-Alkyl-N-Hydroxyethyl)-Amides of 1-(5)-Nitro-1'-Naphthoic Acids," E. I. Gerasimova, Ye. N. Petrova, All-Union Sci Res Chemico-pharm Inst imeni S. Ordzhonikidze

"Zhur Obshech Khim." Vol XXI, No 12, pp 2174-2175

Prepd (N-butyl-N-hydroxyethyl)- and (N-isobutyl-N-hydroxyethyl)-amides of 1-nitro-1-naphthoic acid and (N-isobutyl-N-hydroxyethyl)-amide of 5-nitro-1-naphthoic acid. Carried out amide-ester rearrangement with certain of these comps.

FA 19LT-1

GOFMAN, G.Ye., prof.; ZHELEZNEV, B.I., kand. med. nauk; KLENITSKIY, Ya.S., prof.; LEL'CHUK, P.Ya., prof.; MARKINA, V.P., dots.; NOVIKOVA, L.A., prof.; PETROVA, Ye.N., prof.; POKROVSKIY, V.A., prof.; FRINOVSKIY, V.S., prof.; PERSIANINOV, L.S., prof., otv. red.; IL'IN, I.V., red.; LYUDKOVSKAYA, N.I., tekhn. red.

[Multivolume manual on obstetrics and gynecology] Mnogotomnoe rukovodstvo po akusherstvu i ginekologii. Moskva, Medgiz. Vol.5.[Tumors of female genitalia] Opukholi zhenskikh polovykh organov. 1962. 314 p. (MIRA 16:8)

1. Chlen-korrespondent AMN SSSR (for Novikova Persianinov).
(GENERATIVE ORGANS, FEMALE--TUMORS)

PETROVA, E. N.

Isomerization of polymethylene hydrocarbons under the influence of aluminum chloride. XII. Optimum conditions of the isomerization of alkylcyclopentanes. M.B. Turova-Pollak, N. P. Egorova, and E.N. Petrova (Moscow State Univ.). J. Gen. Chem. (U.S.S.R.) 16, 825-8 (1946); cf. C.A. 39, 4060³. - Ethyl-propyl-, and butylcyclopentanes with 1/3 molar amt. of $AlCl_3$ evolved heat spontaneously. In all cases isomerization into cyclohexane derivs. occurred (97.8, 86.6, and 68.4%, resp.). The latter class were identified by sulfonation of the dehydrogenated products, followed by hydrolysis of the sulfonic acids; the results indicated isomerization to methylcyclohexane, dimethylcyclohexane, and trimethylcyclohexane, resp. When the reaction mixts. were heated to the b.p. of the starting hydrocarbons, the yields rose to 100, 91.8, and 80% resp. The low yield in the last case was apparently due to incipient cracking of the hydrocarbon at the b.p. (160°). XIII. Isomerization of ethylcycloheptane. M.B. Turova-Pollak and E.N. Petrova (Moscow State Univ.). Ibid 829-34. - It was shown that in the course of the interaction of ethylcycloheptane (I) with $AlCl_3$ (with spontaneous heat evolution) there takes place an isomerization into derivs. of cyclohexane to the extent of 18-20%. The hydrocarbon- $AlCl_3$ mol. ratio was 3:1, max. temp. 57°; no gas evolution was observed. The reaction products b. 147-60° and ranged in n_D^{20} from 1.4330 to 1.4370; thus, although the b.ps. were higher than those known for the isomeric trimethylcyclohexanes, the values of n were within the exptl. error range. The products were again subjected to treatment with $AlCl_3$ with heating 18 hrs. to 140-5°. The bulk of the product now b. 138-46°, n_D^{20} 1.4278-1.4300, consts. very close to those of the isomeric trimethylcyclohexanes. The products were dehydrogenated over Pt-charcoal at

PETROVA, Ye. N.

USSR/Chemistry - Anesthetics

Feb 52

"Anesthetics of the Naphthaline Series. VII. Monoalkylaminoalkyl Esters of Certain Naphthalinecarboxylic Acids," S. I. Sergiyevskaya, Ye. N. Petrova, All-Union Sci Res Chem-Phar Inst imeni Ordzhonikidze

"Zhur Obshch Khim" Vol XXII, No 2, pp 328-333

Following up earlier original synthesis of highly effective anesthetics (dialkylaminoalkyl esters of 4-amino-1-naphthoic acid), prepd monoalkylaminoethyl esters of 4(5)-nitro- and 4(5)-amino-1-naphthoic and β -(naphthyl-1)-acrylic acids.

209T31

GRINSHFUD, S.D.; OTLEV, I.A.; SHIRYAYEV, Yu.D.; PETROVA, Ye.N.

Method for manufacturing piezothermoplastics. Der.prom. 9 no.11:6-7
'60. (MIRA 13:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut mekhanicheskoy
obrabotki dereva.

(Plastics)

Petrova, Ye.N.

PETROVA, Ye.N.; POLILOV, N.A.; KOSHELEV, V.I.

New technique for making scalpels. Med.prom. 11 no.8:12-19 Ag '57.
(MIRA 10:11)

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instrumentariya i oborudovaniya i Gor'kovskiy mediko-instrumental'-
nyy zavod imeni V.I.Lenina.
(SURGICAL INSTRUMENTS AND APPARATUS)

137-58-4-7149

Translation from: Referativnyy zhurnal Metallurgiya 1958 Nr 5 p 120 (USSR)

AUTHORS: Zvorono, B. P., ~~Petrova, Ye. N.~~, Polilev, N. A., Vayner, Ye. L., Samsonenko, G. T.

TITLE: Designs of Medical Instruments Suitable for Production by Cold Extrusion (Konstruktsionnye meditsinskikh instrumentov dopuskayushchikh kholodnoye pressovanie)

PERIODICAL: Materialy po obmenu opytom: nauchn. dostizh. v med. promyshlennosti, 1957, Nr 4 (23) pp 90-106

ABSTRACT: The manufacture of medical instruments from blanks in the form of bodies of revolution produced by cold reducing (cold rolling, or machined by template on a lathe) is performed on ordinary presses using open plates, with reduction by 50-60 percent in a single operation in the cold condition under unit pressures of 12-15 t/cm² offering the following advantages: replacement of the laborious operations of hand roughing and filing by machine operation, production of a high degree of surface finish without burrs or having no more than a thin flash, saving of metal, employment of universal equipment, use of simple and cheap dies, repair of which may be done on a flat grinder. When high degrees

Card 1 of 2